

Conception et réalisation d'un système d'imagerie ultrasonore commandé par carte FPGA

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Abstract: This research will be built on the study, the conception and the software and hardware realization of a micrometric displacement system with three axes, controlled by FPGA board. This system allows a scanning of the parts by ultrasonic transducers. The acquired ultrasound signals are sent to a PC for processing and exploitation. This work also consists in implementing algorithms on MATLAB allowing to constitute ultrasonic images and to process them in order to detect and locate the possible defects (ex.cracks) in the examined parts.

Keywords : micrometric displacement, FPGA board, ultrasound transducers